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1. EFS-Bio (<<http://www.uspto.gov/efb/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
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Revised 01/24/05



IFWO

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/776,521A

DATE: 02/14/2005

TIME: 07:39:35

Input Set : E:\SEQLIST (8449-405 Amended).TXT

Output Set: N:\CRF4\02142005\J776521A.raw

4 <110> APPLICANT: Fletchner, Jessica
5 Prince-Cohane, Kenya
6 Mehta, Sunil
7 Slusarewicz, Paul
8 Andjelic, Sofija
9 Barber, Brian
11 <120> TITLE OF INVENTION: HEAT SHOCK PROTEIN-BASED VACCINES AND
12 IMMUNOTHERAPIES
14 <130> FILE REFERENCE: 8449-405-999
16 <140> CURRENT APPLICATION NUMBER: 10/776,521A
17 <141> CURRENT FILING DATE: 2004-02-12
19 <150> PRIOR APPLICATION NUMBER: 60/503,417
20 <151> PRIOR FILING DATE: 2003-09-16
22 <150> PRIOR APPLICATION NUMBER: 60/463,746
23 <151> PRIOR FILING DATE: 2003-04-18
25 <150> PRIOR APPLICATION NUMBER: 60/462,469
26 <151> PRIOR FILING DATE: 2003-04-11
28 <150> PRIOR APPLICATION NUMBER: 60/447,142
29 <151> PRIOR FILING DATE: 2003-02-13
31 <160> NUMBER OF SEQ ID NOS: 419
33 <170> SOFTWARE: FastSEQ for Windows Version 4.0
35 <210> SEQ ID NO: 1
36 <211> LENGTH: 4
37 <212> TYPE: PRT
38 <213> ORGANISM: Malaria
40 <400> SEQUENCE: 1
41 Asn Ala Asn Pro
42 1
45 <210> SEQ ID NO: 2
46 <211> LENGTH: 9
47 <212> TYPE: PRT
48 <213> ORGANISM: Unknown
50 <220> FEATURE:
51 <223> OTHER INFORMATION: HLA-A2 peptide binding motif
W--> 53 <221> NAME/KEY: VARIANT
54 <222> LOCATION: 2
55 <223> OTHER INFORMATION: Xaa = Leu or Met
W--> 57 <221> VARIANT
58 <222> LOCATION: 6
59 <223> OTHER INFORMATION: Xaa = Val or Ile or Leu or Thr
W--> 61 <221> VARIANT
62 <222> LOCATION: 9
63 <223> OTHER INFORMATION: Xaa = Val or Leu

(pg. 6)
Does Not Comply
Corrected Diskette Needed
(pg. 2) ←

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Input Set : E:\SEQLIST (8449-405 Amended).TXT

Output Set: N:\CRF4\02142005\J776521A.raw

W--> 65 <221> VARIANT
66 <222> LOCATION: 1, 3 , 4, 5, 7, 8
67 <223> OTHER INFORMATION: Xaa = any amino acid
W--> 69 <400> 2
W--> 70 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
71 1 5
74 <210> SEQ ID NO: 3
75 <211> LENGTH: 9
76 <212> TYPE: PRT
77 <213> ORGANISM: Unknown
79 <220> FEATURE:
80 <223> OTHER INFORMATION: HLA-A2 peptide binding motif
W--> 82 <221> NAME/KEY: VARIANT
83 <222> LOCATION: 2
84 <223> OTHER INFORMATION: Xaa = Leu. or Met
W--> 86 <221> VARIANT
87 <222> LOCATION: 1, 3, 4, 5, 6, 7, 8
88 <223> OTHER INFORMATION: Xaa = any amino acid
W--> 90 <400> 3
W--> 91 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Val
92 1 5
95 <210> SEQ ID NO: 4
96 <211> LENGTH: 8
97 <212> TYPE: PRT
98 <213> ORGANISM: Unknown
100 <220> FEATURE:
101 <223> OTHER INFORMATION: HLA-A2 peptide binding motif
W--> 103 <221> NAME/KEY: VARIANT
104 <222> LOCATION: 2
105 <223> OTHER INFORMATION: Xaa = Val or Gln
W--> 107 <221> VARIANT
108 <222> LOCATION: 1, 3, 4, 5, 6, 7, 8
109 <223> OTHER INFORMATION: Xaa = any amino acid
W--> 111 <400> 4
W--> 112 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Leu
113 1 5
116 <210> SEQ ID NO: 5
117 <211> LENGTH: 5
118 <212> TYPE: PRT
119 <213> ORGANISM: Unknown
121 <220> FEATURE:
122 <223> OTHER INFORMATION: HLA-DR peptide binding motif
124 <400> SEQUENCE: 5
125 Gln Lys Arg Ala Ala
126 1 5
129 <210> SEQ ID NO: 6
130 <211> LENGTH: 5
131 <212> TYPE: PRT
132 <213> ORGANISM: Unknown

There is no "Xaa" at this location.

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134 <220> FEATURE:
135 <223> OTHER INFORMATION: HLA-DR peptide binding motif
137 <400> SEQUENCE: 6
138 Arg Arg Arg Ala Ala
139 1 5
142 <210> SEQ ID NO: 7
143 <211> LENGTH: 7
144 <212> TYPE: PRT
145 <213> ORGANISM: Unknown
147 <220> FEATURE:
148 <223> OTHER INFORMATION: motif in heptameric region recognized by heat
149 shock protein
W--> 151 <221> NAME/KEY: VARIANT
152 <222> LOCATION: 2
153 <223> OTHER INFORMATION: Xaa = Trp or any amino acid
W--> 155 <221> VARIANT
156 <222> LOCATION: 1, 3, 5, 7
157 <223> OTHER INFORMATION: Xaa = hydrophobic amino acid residues
W--> 159 <221> VARIANT
160 <222> LOCATION: 4, 6
161 <223> OTHER INFORMATION: Xaa = any amino acid
W--> 163 <400> 7
W--> 164 Xaa Xaa Xaa Xaa Xaa Xaa Xaa
165 1 5
168 <210> SEQ ID NO: 8
169 <211> LENGTH: 7
170 <212> TYPE: PRT
171 <213> ORGANISM: Unknown
173 <220> FEATURE:
174 <223> OTHER INFORMATION: motif in heptameric region recognized by heat
175 shock protein
W--> 177 <221> NAME/KEY: VARIANT
178 <222> LOCATION: 2
179 <223> OTHER INFORMATION: Xaa = Trp or any amino acid
W--> 181 <221> VARIANT
182 <222> LOCATION: 1, 3, 5, 7,
183 <223> OTHER INFORMATION: Xaa = hydrophobic amino acid residue, particularly
184 tryptophan, leucine or phenylalanine
W--> 186 <221> VARIANT
187 <222> LOCATION: 4, 6
188 <223> OTHER INFORMATION: Xaa = any amino acid
W--> 190 <400> 8
W--> 191 Xaa Xaa Xaa Xaa Xaa Xaa Xaa
192 1 5
195 <210> SEQ ID NO: 9
196 <211> LENGTH: 4
197 <212> TYPE: PRT
198 <213> ORGANISM: Artificial Sequence
200 <220> FEATURE:

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DATE: 02/14/2005

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Input Set : E:\SEQLIST (8449-405 Amended).TXT

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201 <223> OTHER INFORMATION: mutated heat shock protei peptide
203 <400> SEQUENCE: 9
204 Lys Asp Glu Leu
205 1
207 <210> SEQ ID NO: 10
208 <211> LENGTH: 10
209 <212> TYPE: PRT
210 <213> ORGANISM: Adeno Virus
212 <400> SEQUENCE: 10
213 Ser Gly Pro Ser Asn Thr Pro Pro Glu Ile
214 1 5 10
217 <210> SEQ ID NO: 11
218 <211> LENGTH: 11
219 <212> TYPE: PRT
220 <213> ORGANISM: Lymphocytic Choriomeningitis Virus (LCMV)
222 <400> SEQUENCE: 11
223 Ser Gly Val Glu Asn Pro Gly Gly Tyr Cys Leu
224 1 5 10
227 <210> SEQ ID NO: 12
228 <211> LENGTH: 10
229 <212> TYPE: PRT
230 <213> ORGANISM: Lymphocytic Choriomeningitis Virus (LCMV)
232 <400> SEQUENCE: 12
233 Lys Ala Val Tyr Asn Phe Ala Thr Cys Gly
234 1 5 10
237 <210> SEQ ID NO: 13
238 <211> LENGTH: 9
239 <212> TYPE: PRT
240 <213> ORGANISM: Lymphocytic Choriomeningitis Virus (LCMV)
242 <400> SEQUENCE: 13
243 Arg Pro Gln Ala Ser Gly Val Tyr Met
244 1 5
247 <210> SEQ ID NO: 14
248 <211> LENGTH: 9
249 <212> TYPE: PRT
250 <213> ORGANISM: Lymphocytic Choriomeningitis Virus (LCMV)
252 <400> SEQUENCE: 14
253 Phe Gln Pro Gln Asn Gly Gln Phe Ile
254 1 5
257 <210> SEQ ID NO: 15
258 <211> LENGTH: 9
259 <212> TYPE: PRT
260 <213> ORGANISM: Influenza Virus
262 <400> SEQUENCE: 15
263 Ile Glu Gly Gly Trp Thr Gly Met Ile
264 1 5
267 <210> SEQ ID NO: 16
268 <211> LENGTH: 10
269 <212> TYPE: PRT

RAW SEQUENCE LISTING

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Input Set : E:\SEQLIST (8449-405 Amended).TXT

Output Set: N:\CRF4\02142005\J776521A.raw

270 <213> ORGANISM: Influenza Virus
272 <400> SEQUENCE: 16
273 Thr Tyr Val Ser Val Ser Thr Ser Thr Leu
274 1 5 10
277 <210> SEQ ID NO: 17
278 <211> LENGTH: 8
279 <212> TYPE: PRT
280 <213> ORGANISM: Influenza Virus
282 <400> SEQUENCE: 17
283 Phe Glu Ala Asn Gly Asn Leu Ile
284 1 5
287 <210> SEQ ID NO: 18
288 <211> LENGTH: 9
289 <212> TYPE: PRT
290 <213> ORGANISM: Influenza Virus
292 <400> SEQUENCE: 18
293 Ile Tyr Ser Thr Val Ala Ser Ser Leu
294 1 5
297 <210> SEQ ID NO: 19
298 <211> LENGTH: 9
299 <212> TYPE: PRT
300 <213> ORGANISM: Influenza Virus
302 <400> SEQUENCE: 19
303 Thr Tyr Gln Arg Thr Arg Ala Leu Val
304 1 5
307 <210> SEQ ID NO: 20
308 <211> LENGTH: 9
309 <212> TYPE: PRT
310 <213> ORGANISM: Influenza Virus
312 <400> SEQUENCE: 20
313 Cys Thr Glu Leu Lys Leu Ser Asp Tyr
314 1 5
317 <210> SEQ ID NO: 21
318 <211> LENGTH: 8
319 <212> TYPE: PRT
320 <213> ORGANISM: Influenza Virus
322 <400> SEQUENCE: 21
323 Ser Asp Tyr Glu Gly Arg Leu Ile
324 1 5
327 <210> SEQ ID NO: 22
328 <211> LENGTH: 9
329 <212> TYPE: PRT
330 <213> ORGANISM: Influenza Virus
332 <400> SEQUENCE: 22
333 Glu Glu Gly Ala Ile Val Gly Glu Ile
334 1 5
337 <210> SEQ ID NO: 23
338 <211> LENGTH: 9
339 <212> TYPE: PRT

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/776,521A

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Input Set : E:\SEQLIST (8449-405 Amended).TXT
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; Xaa Pos. 1,2,3,4,5,6,7,8,9
Seq#:3; Xaa Pos. 1,2,3,4,5,6,7,8
Seq#:4; Xaa Pos. 1,2,3,4,5,6,7
Seq#:7; Xaa Pos. 1,2,3,4,5,6,7
Seq#:8; Xaa Pos. 1,2,3,4,5,6,7
Seq#:295; Xaa Pos. 1
Seq#:296; Xaa Pos. 3
Seq#:301; Xaa Pos. 2,6
Seq#:348; Xaa Pos. 5

VERIFICATION SUMMARY

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Input Set : E:\SEQLIST (8449-405 Amended).TXT

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L:53 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
 L:57 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2
 L:61 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2
 L:65 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2
 L:69 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2
 L:70 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
 L:82 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
 L:86 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:3
 L:90 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:3
 L:91 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
 L:103 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
 L:107 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4
 L:111 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4
 L:112 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
 L:151 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
 L:155 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7
 L:159 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7
 L:163 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7
 L:164 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
 L:177 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
 L:181 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
 L:186 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
 L:190 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
 L:191 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
 L:3717 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
 L:3721 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:295
 L:3722 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:295 after pos.:0
 L:3735 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
 L:3739 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:296
 L:3740 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:296 after pos.:0
 L:3809 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
 L:3813 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:301
 L:3814 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:301 after pos.:0
 L:4471 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
 L:4475 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:348
 L:4476 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:348 after pos.:0

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